DOCUMENT RESUME

ED 247 288 TM 840 468

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TITLE Comparison of Two Measures of Type A Behavior in Children.
PUB DATE Aug 83
NOTE 27p.; Paper presented at the Annual Meeting of the American Psychological Association (91st, Anaheim, CA, August 26-30, 1983).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Behavior Rating Scales; Correlation; Elementary Education; High Schools; *Interrater Reliability; *Personality Measures; *Personality Traits; Test Reliability; *Test Validity
IDENTIFIERS Hunter Wolf A B Rating Scale; Jenkins Activity Survey; Matthews Youth Test for Health; *Type A Behavior

ABSTRACT

This study assessed the interchangeability of the Matthews Youth Test for Health (MYTH) and Hunter-Wolf A-B Rating Scale. Data from 25 elementary teachers and 300 of their students showed these scales to be weakly correlated, and the concordance of their A-B classifications to be only slightly above that expected by chance. Weak agreement was found even when teachers and students rated the same Type A behaviors, suggesting that variability in content is not the principal reason for the lack of agreement between these measures. This study also assessed the interrater reliability of the MYTH while controlling for the effects of different classroom environments on Type A responding. Whereas the mean interrater agreement was fairly high, considerable variation was found across the seven pairs of raters. Finally, this study examined the association between the Hunter-Wolf and the student version of the Jenkins Activity Survey (JAS). Data from 393 high school seniors revealed a moderately strong correlation between the Hunter-Wolf and the JAS. The results of this study strongly suggest that the youth measures of Type A behavior not be considered interchangeable. (Author)

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Comparison of Two Measures of Type A Behavior in Children

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Paper presented at the 91st Annual Meeting of the American Psychological Association, August, 1983.

Abstract

This study assessed the interchangeability of the MYTH and Hunter-Wolf. Data from 25 elementary teachers and 300 of their students showed these scales to be weakly correlated, and the concordance of their A-B classifications to be only slightly above that expected by chance. Weak agreement was found even when teachers and students rated the same Type A behaviors, suggesting that variability in content is not the principal reason for the lack of agreement between these measures. This study also assessed the interrater reliability of the MYTH while controlling for the effects of different classroom environments on Type A responding. Whereas the mean interrater agreement was fairly high, considerable variation was found across the seven pairs of raters. Finally, this study examined the association between the Hunter-Wolf and the student version of the JAS. Data from 393 high school seniors revealed a moderately strong correlation between the Hunter-Wolf and the JAS. The results of this study strongly suggest that the youth measures of Type A behavior not be considered interchangeable.

Comparison of the MYTH and Hunter-Wolf Measures of Type A Behavior in Children

During the last five years there has been a steady increase in research on the etiology and development of the Type A behavior pattern. Much of this research has investigated the behavioral (e.g., Blaney, 1983; Matthews & Volkin, 1981) and physiological (e.g., Lawler, Allen, Critcher & Standard, 1981; Murray, Blake, Prineas & Gillum, 1983) similarities between Type A children and Type A adults. The predominant means of assessing Type A behavior in children has been, for several years, the Matthews Youth Test for Health (MYTH; Matthews & Angulo, 1980). As more researchers have entered this field, several other youth measures of Type A behavior have been developed, including the Adolescent Structured Interview (Siegel & Leitch, 1981), the Hunter-Wolf A-B Rating Scale (Wolf, Sklov, Wenzl, Hunter & Berenson, 1982) and the Miami Structured Interview-1 (Gerace & Smith, 1982). In addition, two instruments originally developed to assess Type A behavior in adults, the Bortner Adjective Rating Scale (Bortner, 1969) and the Bortner Performance Battery (Bortner & Rosenman, 1967) have been used to assess Type A behavior in children (Lawler et al., 1981) and adolescents (Siegel & Leitch, 1981).

The first concern of the present study is whether these measures yield similar assessments of Type A behavior. That is, can these measures be used interchangeably, such that the results of a study on Type A in the young are unlikely to be affected by the researchers' choice of a classification instrument? To date, little research has been conducted to assess the interchangeability of these measures. This research is important because it seems probable that the youth measures of Type A behavior are not strongly associated. The basis for this assertion is the weak association that exists between the two principal adult measures of Type A, the Structured Interview

(SI; Friedman & Rosenman, 1960) and the Jenkins Activity Survey (JAS; Jenkins, Rosenman & Friedman, 1967). Chesney, Black, Chadwick and Rosenman (1981) have recently stated that "the individual classified Type A by [the JAS] is not similar to the individual classified Type A by the interview" (p.227). Matthews (1982) and other leaders in the field have emphasized that because only the slightest margin of overlap exists between the SI and JAS, the two measures should not be used interchangeably (Matthews, Krantz, Dembroski & MacDougall, 1982). The discrepancy between the JAS and SI has generally been attributed to their variation in format; that is, the interview assesses the style as well as the content of responding whereas the JAS assesses only the content of responding (Jenkins, 1978). This discrepancy occurs despite the JAS being developed to be as similar as possible to the SI (Rosenman, 1978).

The youth measures of Type A were not developed to be highly similar to one another. They utilize different formats, including a teacher-rated scale, self-report questionnaires, structured interviews and a performance battery. They also vary considerably in content, target age ranges, sensitivity to age and gender differences, and degree of specificity in assessing the behavioral components of Type A (i.e., global vs. subscale scores). These sources of variation are likely to have a negative impact on the level of agreement among the youth measures.

The lack of overlap between the JAS and the SI has had serious consequences for the field of adult Type A research. As discussed by Matthews (1982), these consequences are: (a) it has not been possible to establish predictive relationships among the measures of Type A behavior and other variables; (b) it has not been possible to integrate the data on Type A behavioral characteristics, and (c) there exists considerable confusion in the literature about what the Type A construct is. To the extent that the youth

measures do not similarly assess the construct, the field may look forward to the same problems now faced by researchers of Type A behavior in adults. The purpose of this study is to begin to address this concern by examining two of the youth measures of Type A behavior to determine whether they do in fact assess the same construct.

An ideal test of the strength of agreement among the youth measures of Type A behavior would be to compare each measure with all other measures. This is not feasible, however, because all the measures are not appropriate for the same age groups and because of the large amount of time needed to administer the whole set of measures. Moreover, such an approach would make it difficult to control for the effects of repeated testing. Therefore, a decision was made to compare the MYTH and the Hunter-Wolf A-B Rating Scale (HWOLF; Wolf et al., 1982), an instrument relatively comparable to the MYTH in terms of validity, reliability and target age group. Both measures have been validated against behavioral and physiological indices of Type A, their reliability has been assessed, and they overlap in target age ranges (see Matthews & Angulo, 1980; Matthews & Volkin, 1981; Hunter, Wolf, Sklov, Webber, Watson & Berenson, 1982; Wolf et al., 1982). Because neither scale requires specialized training and both are easily administered, they share the potential for widespread use. Thus, this study will focus on instruments whose interchangeability is likely to be of major concern.

To determine whether the MYTH and HWOLF may be used as interchangeable measures, the strength of the association of the overall scores on both measures will be computed, as will the concordance of their Type A-B classifications. In addition, the extent to which the format difference between the two measures affects their agreement will be assessed. That is, since the MYTH is a teacher-rated scale and the HWOLF is a self-report

questionnaire, it is of interest to ask how similarly teachers and students will rate the same behaviors. It is possible to examine this question by focusing on the MYTH and HWOLF items with similar content. Nine such item pairs (e.g., MYTH: This child tends to get into fights; HWOLF: I often get into fights) provide an opportunity to examine the level of agreement between the teachers' ratings and the students' self-reports of the same behaviors.

Focusing on the HWOLF and the MYTH also presents the opportunity for this study to address two adjunct issues. The first issue is the interrater reliability of the MYTH, which has not been clearly established. Of concern is whether teachers' observations of children's Type A behaviors agree and, in particular, whether agreement between raters is enhanced when both raters observe children within the same classroom environment. The only information available to date on the interrater reliability of the MYTH is that provided by Matthews and Volkin (1981, footnote 1, p. 1285). A sample of 99 sixth grade boys were rated by two pairs of "solid subject" (e.g., math or english) teachers. The reliability coefficient ranged from .50 (for the male-female teacher pair) to .70 (for the female-female teacher pair). It is important to recognize, however, that this approach measures not only differences across raters, but also differences across environments. That is, the teachers based their ratings on the same students, but within different classroom environments, creating a likely source of interrater variability, and thereby attenuating interrater reliability. Theoretically, Type A students would display high levels of competitive achievement-striving or impatience only in response to stimuli that threaten their ability to control or succeed within the classroom environment (Rosenman & Friedman, 1977). Thus, some students who manifested Type A behavior in one classroom setting may not have done so in the other. Recently, other researchers have also recognized the potential

negative impact of different classroom environments on interrater agreement (Smith & Gerace, 1983; Matthews & Avis, 1983). It is desirable, therefore, to test the interrater reliability of the MYTH while controlling for the effect of different classroom environments on Type A responding; this is expected to minimize the variability in stimuli that may elicit Type A responding, and thereby maximize agreement between raters. The present study does this by having teachers and their classroom aides complete the MYTH.

The second adjunct issue is the extent to which a youth measure of Type A behavior is associated with an adult measure of the construct. The target age range of the HWOLF is such that, while it does overlap with the MYTH, it also also overlaps slightly (at age 18) with the student version of the JAS (Krantz, Glass & Snyder, 1974). Although twelfth graders are somewhat younger than the college students typically assessed with this version of the JAS, these data were collected so that students completed the JAS during their last six weeks of high-school when they were only three months away from being college freshmen. As a further check on their comparability to college samples, the descriptive statistics of this sample's JAS scores will be compared to the standards described by Glass (1977). The HWOLF therefore offers a unique opportunity to compare the A-B classifications derived from a youth measure with those obtained from a widely used adult measure. The results of this assessment will be the first indication of the extent to which scores derived from a youth measure of Type A behavior are associated with scores derived from an established adult measure of the construct.

Method

Subjects

The student participants in this study were from six elementary schools and one high school, located in predominantly white, suburban middle-class

Southern California neighborhoods. The sample included: 300 elementary students, grades 3 through 6, and 385 high school students (grade 12), representing an 86 percent participation rate among the elementary school students and an 85 percent rate among seniors. The major reasons for nonparticipation were students' failure to return their parental consent forms (nine percent of elementary students) and absenteeism. Relatively few parents (about two percent) did not allow participation; for the most part, these parents were concerned about the loss of classroom time.

Twenty-five elementary grade teachers (six males and 19 females) and seven classroom aides (all female) also provided data. Each aide worked with a teacher throughout the academic year and in many cases the aides had been with the same teacher for several years. These aides were in the classroom the same number of hours as the teachers, and they interacted with the students in the same manner as teachers. Because the aides' experience with the students was equivalent to that of the teachers, it was appropriate to have them complete the MYTH.

Measures

The MYTH is a teacher-rated scale that contains 17 items thought to characterize Type A behaviors in children. The MYTH requires teachers to rate how characteristic each statement is of a student, on a scale of 1 (extremely uncharacteristic) to 5 (extremely characteristic). After three items are reverse coded, the items are summed so that overall MYTH scores range from 17 (extreme Type B) to 85 (extreme Type A).

The HWOLF is a self-report questionnaire containing 24 statement pairs. Each pair consists of two statements thought to reflect characteristic A - B differences (e.g.,"I find it difficult to wait" and "I find to easy to wait"). The pairs are anchored on a seven-point scale drawn in the form of a ladder to

convey the idea that the item statements are part of a behavioral continuum. (see Wolf et al., 1982, for an illustration of the scales.) Students were instructed to place an "x" on the ladder rung that shows how they are "most of the time". After reverse coding, the 24 pairs are summed to yield a total Type A score which may range from 24 (extreme Type B) to 168 (extreme Type A). Thus, high scores on both the MYTH and HWOLF reflect the Type A end of the scale.

Procedure

Elementary grade students were administered the HWOLF. Elementary grade teachers and, where possible, their aides, completed the MYTH. High school students completed both the HWOLF and the student version of the JAS. All participants and parents were told that the purpose of the research was to measure day to day activities thought to be related to overall health; the terms "Type A" and "coronary-prone" were never used to explain the purpose of the study. All data were collected during a two week period towards the end of the academic year. Teachers and aides were instructed not to discuss their ratings prior to their completion of the MYTH. The HWOLF was administered to the elementary students on a classroom basis between the hours of 8:00 and 11:00 a.m.. The completed MYTHs also were collected from the teachers and aides at this time.

At the high school level, HWOLF and JAS data were collected from senior classes. The order of the scales was counter-balanced so that one-half of the students completed the HWOLF first, while the other half completed the JAS first. To minimize contamination of the data by students discussing their responses, data were collected within a single 8:00 a.m. to 1:00 p.m. time period.

Results

Previous research has found that the overall scores on the MYTH show consistent gender differences but no consistent age differences (Matthews & Angulo, 1980), whereas HWOLF scores have been found to show consistent age differences but no consistent gender differences (Wolf et al., 1981). Agreement between the scales may be affected by these opposite patterns of sensitivity to respondents' age and gender. Thus, preliminary analyses of the elementary school children's data were conducted to determine whether either gender or grade had any effect on MYTH and HWOLF scores. As expected, a grade x gender ANOVA indicated that, for the MYTH, only gender had a significant effect ($F(1,290) = 22.52$, $p < .001$), with males scoring higher (more Type A) than females. Also as expected, the grade x gender ANOVA revealed that HWOLF scores increased with grade ($F(1,290) = 2.42$, $p = .066$). Unexpectedly, however, gender also affected the HWOLF scores ($F(1,290)=23.74$, $p<.001$) with males scoring higher than females. A grade x gender interaction revealed that females' HWOLF scores did increase with age, while the scores for males did not show such an increase ($F(1,290)=2.62$, $p=.051$). The mean MYTH and HWOLF scores for males and females, grades 3 through 6, are presented in Table 1.

Insert Table 1 about here

Agreement Between the MYTH and HWOLF

The correlation between the overall scores on the MYTH and the HWOLF was weak ($r(298) = .21$; $.099< \rho <.316$).[1] As Figure 1 indicates, agreement between the MYTH and the HWOLF increased with grade level, although none of these correlations differ significantly from one another. The confidence intervals indicate that only the correlations for the 5th and 6th graders were significantly different from zero. Students' gender did not affect the

correlation between the two measures for either the overall analysis or the within grade analyses.

Insert Figure 1 about here

Agreement between the MYTH and HWOLF was also evaluated in terms of the concordance of their Type A - Type B classifications. Concordance was calculated using the kappa statistic, which is the proportion of agreement corrected for chance (Fleiss, 1981). Median-splits were used to classify As and Bs.[2] Table 2 presents the kappa statistics for the entire sample, and for each grade, as well as the results of the significance tests for kappa (a test of the hypothesis that the ratings are independent). Besides examining the significance of the kappa statistic, it is also important to consider its magnitude. Landis and Koch (1977) have characterized the relative strength of agreement associated with different values of kappa. Accordingly, values of kappa between zero and .21 correspond to slight agreement beyond chance; values of .21 to .40 indicate fair agreement beyond chance, and values of .41 to .60 indicate moderate agreement. The kappa values in Table 2 reveal that the probability of a student receiving the same Type A or Type B classification from both the MYTH and HWOLF was only slightly above chance. As with the correlation coefficients, the kappa values show an increase for students in the upper elementary grades; they were not affected in any systematic way by gender.

Insert Table 2 about here

The Impact of Format on MYTH-HWOLF Agreement

The weak association between the MYTH and HWOLF may be affected by several factors, including their dissimilar content and their different

formats. To examine whether agreement between the two scales would improve if they had highly similar content, nine similar item pairs were selected for further analysis. Items were rated as similar by three independent judges; all of the raters agreed that the first eight pairs in Table 3 were similar, while two of the three agreed that the last item pair was similar. Correlations between the similar item pairs revealed that teachers' ratings and students' self-reports of the same behaviors generally do not agree. As Table 3 shows, the only exception to the overall poor agreement for items of similar content were the correlations between items that assess students' leadership activity, which approached a moderate level of agreement.[3]

Insert Table 3 about here

Interrater Reliability of the MYTH

Although the overall interrater reliability for the MYTH was fairly high ($\underline{r}(191) = .61$, $.513<\rho<.692$), there was considerable variation in the interrater reliabilities among the seven teacher-aide pairs who completed the MYTH; reliability coefficients ranged from $\underline{r}(26) = .45$ to $\underline{r}(16) = .83$. These correlations were all significantly different from zero at the 95 percent level, and the two smallest coefficients differed significantly from the largest coefficient. Interestingly, the lowest correlation was obtained from the only male-female teacher aide pair.Interrater reliability of the MYTH was not affected by students' grade or gender.

The concordance of the Type A - Type B classifications of the teacher-aide pairs was assessed using the kappa statistic. The overall kappa for all seven pairs was $\kappa = .42$, $\underline{z} = 6.11$, $\underline{p} < .05$. The magnitude of this kappa value indicates a moderate degree of agreement between the teacher-aide pairs. For the individual pairs, kappa values ranged from $\kappa = .33$ to $\kappa = .67$.

All of these values are significantly different from zero at the 95 percent confidence level; they indicate fair to substantial agreement between raters.

Agreement Between the HWOLF and JAS

The median A-B score on the JAS for the high school sample was 8.0 (median for males = 8.0; females = 7.0; the sample range = 1 through 19). These figures are very similar to the student norms given by Glass (1977). The mean HWOLF score for these students was $\underline{M}$=103, with males ($\underline{M}$=103) scoring slightly higher than females ($\underline{M}$=102). As expected, seniors scored considerably higher (more Type A) on the HWOLF than elementary grade students $\underline{F}(1,681) = 67.78$, $\underline{p} < .01$. The order in which the students completed the HWOLF ($\underline{F}(1,384) = .365$, $\underline{n.s.}$) and the JAS ($\underline{F}(1,383) = .046$, n.s.) did not affect the scores. A moderately strong correlation was found between the HWOLF and the JAS ($\underline{r}(383) = .52$, $.440 < \rho < .586$). This correlation is significantly higher than that found between the HWOLF and the MYTH for elementary school students ($\underline{z} = 4.69$, $\underline{p} < .01$). There was no difference in the correlation between the JAS and HWOLF for high school males ($\underline{r}(171) = .56$, $\underline{p} < .05$) and females ($\underline{r}(193) = .49$, $\underline{p} < .05$). The overall higher level of agreement between the HWOLF and JAS was also reflected by the concordance rates of their A-B classifications ($\kappa = .32$, $\underline{p} < .05$). The value of kappa was greater for males ($\kappa = .42$, $\underline{p} < .05$) than for females ($\kappa = .25$, $\underline{p} < .05$).

Discussion

The primary purpose of this study was to assess the strength of the agreement between the MYTH and the HWOLF when they were used to measure the Type A behavior pattern in elementary grade students. As expected, agreement between the two instruments was found to be weak. The correlation between the overall MYTH and HWOLF scores was quite low, and the probability of both instruments giving the same Type A - Type B classification was only slightly

above that expected by chance. The level of agreement did not improve within any of the grade, gender or grade x gender subsamples.

This study also examined the agreement between the MYTH and the HWOLF items that are similar in content. The correlations between these item pairs were expected to be of a greater magnitude than the correlation between the overall scores on the MYTH and HWOLF. The data did not support this hypothesis; the agreement between teachers' and students' ratings did not improve when the content of the items was essentially held constant. This finding suggests that variability in content is not the principal reason for the lack of agreement between the MYTH and HWOLF.

A partial explanation for the lack of agreement between the two measures is that students, as actors, and teachers, as observers, base their ratings on different forms and different sets of behaviors. For example, when faced with the item "I often get into fights," many students stopped to ask for specifics, such as "Fight how?" (verbally or physically), "With whom?," and, "At home or at school?." Their questions point to the complexity and consequent ambiguity of rating "fighting" behavior. Moreover, the latter two questions point out that students' self-reports are influenced by their entire life domains, whereas teachers' ratings can reflect only what occurs in the classroom. This implies that agreement between students and teachers would improve if they were asked to rate highly specific behaviors that occur within the school environment. This contention is supported by the correlations found between the MYTH and HWOLF items that assess students' leadership behavior, which were the only instances of agreement between the two scales that approached a moderate level. Being selected to lead an activity may be characterized as a concrete, quantifiable event, one that typically occurs within the school environment. Because of these two qualities, there is less

likelihood of ambiguous interpretations by students and teachers regarding the form of behavior, and, increased likelihood that both actors and observers will be cognizant of the same set of actual behaviors. In sum, it has been suggested that format-related differences (i.e., differences between actors and observers) may weaken the agreement between the FWOLF and the MYTH. It is important to recognize, however, that other method differences between these measures (e.g., differences between the impressions of children and adults) may similarly weaken agreement between the two scales.

A second purpose of this study was to assess the interrater reliability of the MYTH while controlling for the effect of different classroom environments on students' Type A responding. It was expected that the interrater reliability coefficients would generally exceed those obtained by Matthews and Volkin (1981). This expected overall increase was not found. While the overall reliability coefficient was equivalent to that found by Matthews and Volkin, there was considerable variation in the level of agreement across the pairs of raters. Thus, any general conclusion about the interrater reliability of the MYTH is tenuous. The results showed that this variation across pairs of raters was not affected by the grade or gender of the students. This suggests that the interrater reliability of the MYTH is susceptible to individual differences across raters. Along these lines, it is worth noting that the lowest reliability coefficient was obtained by the only cross-sexed pair of raters in this study; this finding replicates that of Matthews and Volkin (1981). The effect of raters' gender on their ratings thus seems to warrant additional study, as does the general issue of how individual differences in raters may affect the interrater reliability of the MYTH. Those planning to address these issues, should, however, consider the possibility that the magnitude of agreement between untrained observers in

judging the coronary-prone behavior of others may never exceed moderate levels.

A third purpose of this study was to assess the level agreement between the HWOLF and the student version of the JAS among high school seniors. Surprisingly, the HWOLF proved to be much more strongly associated with the JAS than the MYTH. This may have occurred because the difference in formats was eliminated (both are self-report measures), because the age of the sample was increased, or because of some combination of these conditions. In any case, this finding is noteworthy because it is the first indication that there is some overlap between a youth measure and an adult measure of the Type A construct.

While the results of this study provide some insight as to how format differences may weaken the association between the MYTH and HWOLF, they offer no indication of which format provides the better assessment of Type A in the young. This issue has been discussed by Matthews and Siegel (1982), who argue that external observers are necessary to obtain accurate measurement of Type A in the young. To support their position, they point out that the Structured Interview is a stronger predictor of coronary proneness among adults than is the JAS because the SI relies on external observation. According to these authors, the MYTH is a stronger measure of Type A among children because it too relys on external ratings. As has frequently been stated in the literature, however, the SI is a stronger predictor than the JAS because trained interviewers assess the style as well as the content of responses. Interviewers observe a respondent's style while presenting him or her with a specific challenging situation; the SI contains diagnostic indicators that allow the trained interviewer to observe specific stylistic variables. On the other hand, teachers who complete the MYTH are untrained observers who do not

present students with specific challenge questions. In addition, the MYTH does not rely on diagnostic indicators of response style to classify As and Bs. Because of these important differences between the MYTH and the SI, it is not necessarily the case that the MYTH format provides the best assessment of Type A behavior in children. At this point it seems premature to assume that any format is optimal for assessing Type A in the young, particularly since there has, as yet, been no coronary end-point data for these measures to predict.

In sum, this study has verified that there is only weak agreement between two of the principal youth measures of Type A behavior. The lack of overlap is such that whether or not a particular child is classified Type A or Type B is highly dependent upon the researcher's choice of a classification tool. The major implication of this study is that the MYTH and the HWOLF should not be considered interchangeable measures of Type A behavior. Continued integration of data from studies using these measures is likely to hinder rather than help our understanding of the Type A construct.

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Footnotes

1. Throughout this study all reported confidence intervals are based on a 95 percent confidence level.
2. Concordance rates were calculated using both median-split and extreme score (upper and lower 20 percent) classification procedures. As both procedures yielded similar results, only the results of concordance rates based on median-splits are reported.
3. Ratings on these items were also summed to form one scale of like items for the MYTH and one scale for the HWOLF. The overall correlation between these like items scales was also low, $r(298) = .23$; $(.120 < \rho < .335)$.

Table 1

Means and Standard Deviations for MYTH and HWOLF Scores by Gender and Grade

GRADE	SAMPLE	n	MYTH	HWOLF
	males	25	57.88 (13.47)	98.52 (12.40)
3	females	27	49.41 (12.66)	86.19 (10.67)
	total	52	53.48 (13.61)	92.12 (13.00)
	males	30	53.73 (13.72)	96.70 (8.26)
4	females	29	46.83 (9.13)	91.66 (11.75)
	total	59	50.34 (12.10)	94.22 (10.36)
	males	43	52.95 (11.33)	98.60 (10.72)
5	females	49	47.98 (9.88)	91.08 (11.74)
	total	92	50.30 (10.81)	94.60 (11.83)
	males	43	54.09 (9.67)	98.26 (10.08)
6	females	52	49.17 (10.20)	96.52 (13.52)
	total	95	51.40 (10.21)	97.31 (12.05)
3	males	141	54.43 (11.81)	98.08 (10.30)
through	females	157	48.41 (10.32)	92.15 (12.60)
6	total	298	51.21 (11.42)	94.95 (11.92)

Note: Standard deviations are in parentheses; the total does not add to 300 because information on gender was missing for two students.

Table 2

Kappa Statistics of the MYTH and HWOLF by Grade

GRADE	KAPPA STATISTIC	Z-SCORE
3	-.019	-.135
4	-.088	-.673
5	.235	2.746*
6	.200	1.948
TOTAL	.180	3.123*

*$p<.05$

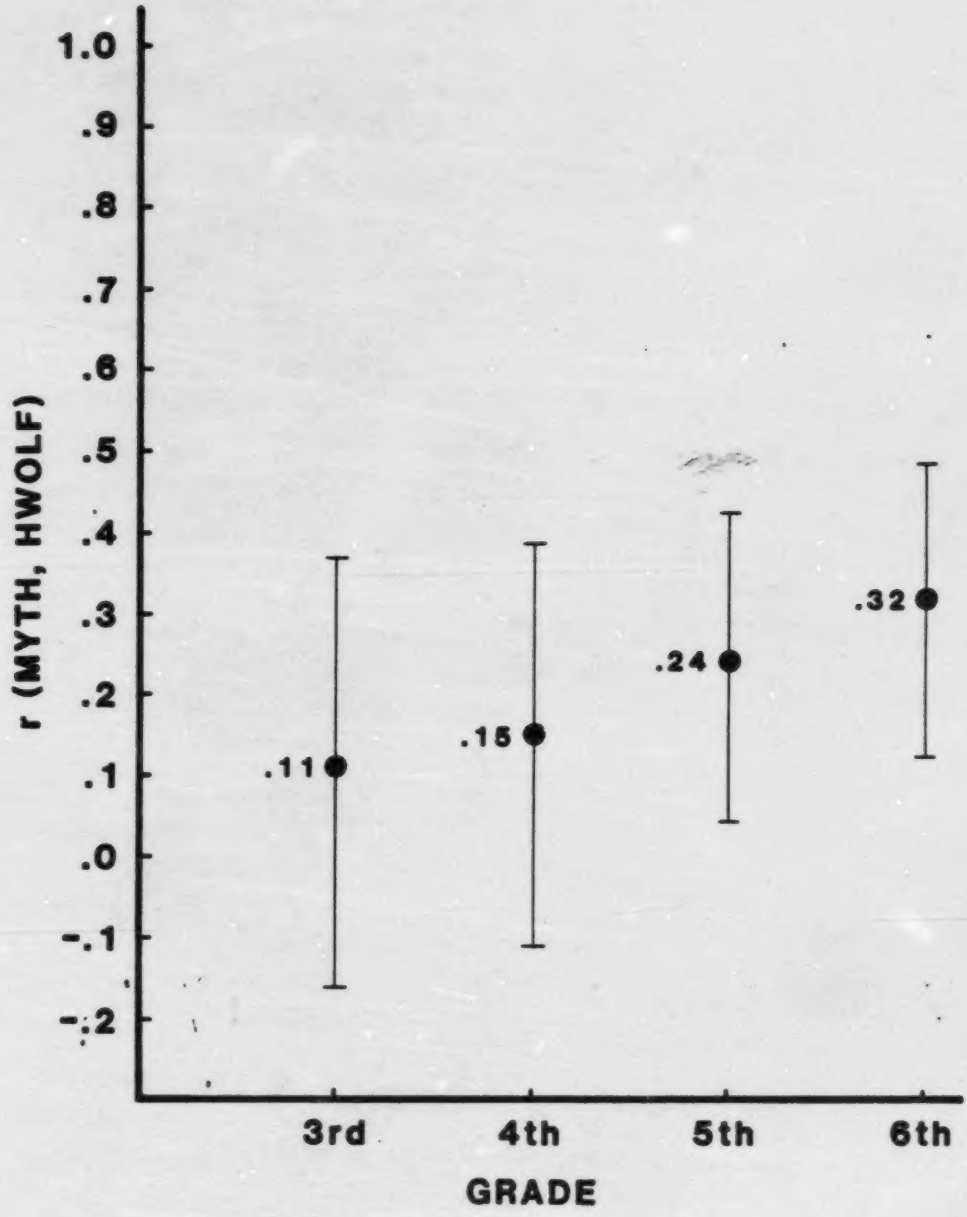
Table 3

Correlations Between MYTH and HWOLF Items of Similar Content (n = 300)

ITEM PAIRS OF SIMILAR CONTENT	r
HWOLF: "I like to argue - I don't like to argue" MYTH: "This child likes to argue or debate"	.10
HWOLF: "I often get into fights - I never get into fights" MYTH: "This child tends to get into fights"	.14
HWOLF: "It takes a lot to get me angry - It takes very little to get me angry" MYTH: "It takes a lot to get this child angry at his/her peers"	.10
HWOLF: "I find it difficult to wait - I find it easy to wait" MYTH: "When this child has to wait for others, He/she becomes impatient"	.14
HWOLF: "I always want to win at everything - I don't care if I win at anything" MYTH: "When this child plays games, he/she is competitive	.08
HWOLF: "I always want to win at everything - I don't care if I win at anything" MYTH: "This child is competitive"	.06
HWOLF: "I often break in or finish when someone else is talking - I always sit and listen when someone else is talking" MYTH: "This child interrupts others"	.15
HWOLF: "I am always a leader in activities - I am never a leader in activities" MYTH: "This child is a leader in various activities"	.25
HWOLF: "My friends always pick me to be a leader when we play games - My friends never pick me to be a leader when we play games" MYTH: "Other children look to this child for leadership"	.39

Figure Caption

Figure 1. Correlations between the overall MYTH and HWOLF scores by grade.


1.0
.9
.8
.7
.6
.5
.4
.3
.2
.1
.0
-.1
-.2
r (MYTH, HWOLF)
.11
.15
.24
.32
3rd
4th
5th
6th
GRADE